



# Lessons From State Performance on NAEP

Why Some High-Poverty Students Score Better Than Others

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By Ulrich Boser and Catherine Brown January 2016

# Introduction and summary

Students from low-income backgrounds face a variety of social and economic challenges that make it more difficult for them to achieve their potential. They often have challenging home lives. They are more likely to have health issues.<sup>1</sup> They are exposed to millions fewer words than their more affluent peers and often lack access to high-quality early childhood education programs that could help them catch up.<sup>2</sup> To make matters worse, low-income students often attend public schools that receive less funding than schools serving more affluent students.<sup>3</sup> If all that were not enough, low-income students also are taught disproportionately by the most inexperienced and out-of-field teachers.<sup>4</sup>

However, it is also clear that some states do a far better job of educating low-income students than others. According to the National Assessment of Educational Progress, or NAEP, there is a massive gap between the states with the highest-performing low-income students and the states with the lowest. For example, in eighth-grade math, students from a low-income background in Massachusetts scored 17 points higher than low-income students in Mississippi.<sup>5</sup> Or think of it this way: Low-income students in Massachusetts are a full grade and a half ahead of low-income students in Mississippi in eighth-grade mathematics.<sup>6</sup>

The Center for American Progress wanted to better understand the role of standards-based reform in promoting student outcomes, and to that end, we studied the most recent NAEP data. Given previous research, we believed that we might find a strong connection between standards-based reform and student outcomes.

Because it can be hard to make clear connections between policy and outcomes, some of our analysis is anecdotal in nature. We also used more-empirical tools for our study, relying on a statistical approach known as a regression analysis to unpack the relationship between standards-based reform and student outcomes. For that part of our analysis, we looked specifically at the performance of low-income students on NAEP over time in relation to a state's standards-based reform efforts, as

measured by the Education Counts database maintained by *Education Week*.<sup>7</sup> Since policy takes time to have an effect across a state, we measured the impacts of policy improvements on NAEP outcomes two years after the actual policy change was adopted, taking into account time for policy to be implemented.

We believe our findings are particularly relevant given the most recent release of NAEP data, and many critics of standards-based reform have expressed concern that NAEP scores did not tick upward between 2013 and 2015.<sup>8</sup> Our research took a more historical look, examining NAEP data over the past decade, and our findings suggest that there is clear evidence that standards-based reform works, particularly when it comes to the needs of low-income students.

Based on our analysis, we found that:

- **Over the past decade, many states that have not fully embraced standards-based reform have fallen behind, while states that have thoughtfully pushed standards have shown clear gains.** From 2003 to 2015, many states that have been historically averse to standards-based reform have shown some of the lowest rates of growth in NAEP scores for low-income students. There are about a dozen states that have shown less than a 5-point gain for low-income students, on average, including Kansas, Iowa, Idaho, Montana, and North and South Dakota. Generally speaking, these states appear to have not embraced standards-based reform fully. Iowa, for instance, was one of the last states to endorse academic standards, adopting them in 1997.<sup>9</sup>

In fact, two states—North Dakota and South Dakota—actually showed a decline in NAEP scores for low-income populations from 2003 to 2015, on average. In other words, these two states have actually regressed in terms of high-poverty student performance.

In contrast, the District of Columbia, Tennessee, Massachusetts, and Florida have had some of the largest gains on NAEP for high-poverty students since 2003, and these areas are at the top of a list of states that have posted more than a 10-point jump on NAEP over the past 12 years.

While there is an important debate over the definition of standards-based reform—and this analysis is undoubtedly anecdotal and impressionistic—it appears clear that states that have not embraced the approach have shown less success, while more reform-oriented states have shown higher gains over the long term.

- **Implementing standards-based reform significantly improved learning outcomes for low-income students in fourth-grade math and eighth-grade reading.** According to our analysis, states typically saw a jump in outcomes due to standards-based reform from 2003 to 2013, and states' standards-based reform effort accounts showed positive outcomes in elementary school math and middle school reading.

We modeled our analysis on a 2006 study of the impact of standards-based reform on student achievement by researcher Christopher Swanson, which looked at the impact of reforms on NAEP up to that point. Similar to the CAP analysis, Swanson's study relied on *Education Week* data and showed positive NAEP outcomes for states that implemented standards-based reform as measured by the Education Counts indicators.<sup>10</sup> Our analysis took a slightly different approach, accounting for fiscal equity as well as focusing specifically on low-income students.

Like all regression analyses, variations in our model can shift the outcomes. Without including a fiscal measure, for instance, policy changes generally have a weaker relationship with changes in achievement. That being said, our empirical results, together with our more anecdotal results, make us confident in our overall findings.

- **States posting poor results are among those looking to leave the Common Core State Standards, or Common Core—a set of higher academic K-12 standards in reading and math—which were developed and adopted by governors and chief state school officers in 2010.** Oklahoma and South Carolina have both recently left the Common Core.<sup>11</sup> What is notable about this development is that these two states generally have low levels of achievement, and they score below the national average in almost every tested subject area and grade level. The states also have a long way to go when it comes to low-income students. In South Carolina, for instance, just 14 percent of low-income students are at grade level in middle school math.<sup>12</sup> In Oklahoma, just 13 percent of low-income students are doing grade-level work in middle school math.<sup>13</sup>

Given these findings, we believe that states should remain dedicated to standards-based reform. The Common Core is the most recent major policy initiative to advance the broader standards-based reform approach. Because of its potential to drive reforms that benefit many students, states should continue their commitment to the Common Core's full implementation and aligned assessments.

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## Our Values

As progressives, we believe America should be a land of boundless opportunity, where people can climb the ladder of economic mobility. We believe we owe it to future generations to protect the planet and promote peace and shared global prosperity.

And we believe an effective government can earn the trust of the American people, champion the common good over narrow self-interest, and harness the strength of our diversity.

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We develop new policy ideas, challenge the media to cover the issues that truly matter, and shape the national debate. With policy teams in major issue areas, American Progress can think creatively at the cross-section of traditional boundaries to develop ideas for policymakers that lead to real change. By employing an extensive communications and outreach effort that we adapt to a rapidly changing media landscape, we move our ideas aggressively in the national policy debate.

